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Torpedo Developed in Newark

Among the distinguished graduates of the old Newark High School in Washington street was the inventor, Winfield Scott Sims. Born in New York City in 1844, he was named for Gen. Winfield Scott, under whom his father, Lindsay D. Sims, served for 11 years in the U. S. Army.

The Sims family came to Newark when the inventor was a boy, and Lindsay D. Sims became captain of Company I, Seventh New Jersey Infantry, in the Civil War. After high school graduation, young Winfield Scott Sims followed his father into the war, enlisting in the 37th New Jersey Regiment.

Returning home, young Sims became a machinist, working at the Newark Machine Works, the Manhattan Arms Co. and for Wright & Smith in Mechanic street, Newark. He later was put in charge of the mechanical department of the Newark Patent Package Co.

Meanwhile he became greatly interested in electricity, and devised improvements in electromagnets. In 1872 he developed

a small electric motor for light work. This motor, weighing 45 pounds, ran on a battery of 20 half-gallon Bunsen cells. Sims demonstrated it by using it to propel a 16-foot open boat at four miles an hour.

About 1870 Winfield Sims became a real estate broker, accumulating property that made it possible for him to devote time and money to his inventions. His military experience led to an interest in projectiles, and he was the first person to apply electricity to the propulsion of torpedoes.

Many Models

In the 19th Century many inventors had worked on torpedoes. In 1868 Robert Whitehead, a Scottish engineer, developed a self-propelling torpedo on whose design most modern torpedo construction is based.

At that period it was difficult to control the course of a torpedo once it was launched. Sims turned his attention toward developing a projectile which could be directed from a ship or from the shore.

In 1873 an American naval engineer, John Lay, demonstrated a torpedo which was propelled by carbonic acid gas and controlled from a ship or from the shore by

electric wires in a cable which unrolled from a reel in the moving torpedo.

The torpedo which Winfield Scott Sims developed in the 1870s and patented in 1882 was a great improvement on Lay's model, for it was propelled, guided and exploded by electricity. This "fish torpedo" was a cigar-shaped structure of copper, 28 feet long and 21 inches in diameter, carrying a coil of cable two miles long. Operators on a ship or on the shore controlled the movements of the torpedo through electricity in the cable.

The United States Government became interested in the "fish torpedo" and ordered 10 of them for experimental purposes. In tests they made a speed of 11 miles an hour and were considered for use in coastal defense.

In 1892 scientific and news magazines were full of accounts of a Sims-Edison torpedo which was being tested abroad. This "electric fish torpedo" carried a marine dynamo invented by Thomas A. Edison. This torpedo developed a speed of 22 miles an hour while carrying a charge of 500 pounds of dynamite.

In 1894 Sims turned his atten-

tion to the design of guns. He developed a dynamite breech-loading gun so light that it could be drawn by a horse or by three or four men. The gun was used by the Cuban insurrectionists, with whom Sims was in sympathy, and by the Rough Riders in the War With Spain.

Sims was disappointed by the failure of the United States to adopt his field gun in World War I. His torpedo was superseded by the development of the modern torpedo-carrying submarine.

Among other inventions by Sims were a breech mechanism for cannon, a dynamite gun for use in dirigibles and a dynamite gun for airplanes. For construction of weapons he organized the New York Ordnance Co., Inc., where he built and sold to Japan in 1907 two wireless dirigible torpedoes.

In his later years Sims was engaged in designing a cruiser to carry 100 tons of high explosives, controlled from a mother ship or from the shore.

In 1916 a breakdown from overwork forced his retirement. He died in St. Michael's Hospital, Newark, in 1918, and is buried in Mt. Pleasant Cemetery.